

first thin; the principal portion of it being scattered on and contiguous to a line of street running from the foot of Blackfriars-bridge, in a direction nearly parallel to the Thames, to the foot of Westminster-bridge.

The southern metropolitan suburbs derived little benefit from improved drainage or underground covered sewers prior to the year 1810, the Commissioners of Sewers for Surrey, &c. not being invested with powers to make new sewers until they obtained an Act for that purpose in the previous year: their operations afterwards had a most beneficial influence, and rendered many places fit for building sites.

Up to the year 1810, the extension and improvement of the Lambeth Waterworks had been progressive, but comparatively gradual; the impetus, however, given to building in Lambeth and the parts adjacent by drainage operations on a large scale, subsequently to 1810, called more rapidly for the construction of waterworks of an enlarged character; and between the years 1810 and 1831 the works were considerably enlarged and extended, and in 1832 and 1833 the present reservoir on Streatham-hill was constructed, and pipes were laid to supply it.

As long ago as the year 1847, the directors found that the complaints made against the quality of the water they distributed were well founded, and in the year 1848, they succeeded in obtaining an Act to enable them to construct new works, under which the arrangements at Ditton have been carried out.

The site of the new works is one mile and a half above Kingston-on-Thames, and three miles beyond the range of the tide. The river is said to be usually very clear and pure: but as it is during a short time every year disturbed by floods, the company have constructed a series of filters, through which all the water is made to pass. These filters are in form sunk water-tight basins. They are paved at a certain height from the bottom with narrow slabs of slate carried on cross walls, and placed half-an-inch apart. Upon these slabs are placed layers of sand, shells, and gravel (about 5 feet in thickness), through which the water descends, filtered, into the culverts and receiving wells, whence it is pumped into the main pipe by steam-engines. These engines, constructed from the designs of Mr. Simpson, are of 600 horses power collectively, and are capable of pumping 10,000,000 gallons of water daily into the company's reservoirs at Brixton, and they can be linked so that any two of them may be worked as one engine of 300 horses power. They are of the kind known as the double or compound cylinder (high and low pressure), expansive engine, combining the patented improvements of Messrs. Pole and Thomson. The great length of the pumping main demands perfect machinery.

The pumps are double acting, ingeniously contrived, with bucket and plunger, requiring only two valves (instead of four valves, with side pipes, as in the ordinary double-acting pump), and they are connected to the engines in such a manner that when any two are worked together, a constant and regular flow of water is ensured through the main pipe. The water passes through the barrels of these pumps direct into the main, it is said, without the stoppages and concussions incident in the ordinary four-valved double-acting pump.

The boilers, nine in number, are cylindrical, each having an internal furnace tube running its whole length, with an arrangement to carry off any water that may be formed by vapours arising. The engines and boilers are placed in fireproof buildings adjoining each other. Over the engines there is a beautiful travelling crane for repairing, &c. The chimney shaft is 110 feet high, and is within a square tower, on the plan of Mr. Thomas Cubitt's, at Thames-bank.

The buildings have an architectural character, solidly and strongly built; and though we cannot greatly admire the battlemented tower (studied from the Castle at Newcastle), we must give the designer credit for having substituted for the usual costly and ugly stand-pipe, a building sufficiently ornamental. The flue is 7 feet square, the enclosing tower, 17 feet.

The aqueduct or main pipe by which the water is conveyed from the engines at Ditton to the company's reservoirs at Brixton, is 10½ miles in length, and formed of cast-iron pipes 30 inches in diameter. This pipe was cast by the firm of Cochrane and Co. near Dudley; the weight of iron in it is about 8,000 tons. It is provided, at various intervals in the length, with stop-valves, for preventing the back flow of the water, and apparatus for emptying, draining, and allowing for the escape of air, and was laid by Mr. William Baker, of Bristol, under the superintendence of Mr. John Brough Palmer, the resident engineer. The total sum expended will be, we understand, 146,000*l.* For some distance the main runs side by side with the South-Western Railway.

The day was somewhat gloomy, and we did not exactly participate in the opinion of one of the speakers, that a "pluvial precipitation" was exactly what should be desired on such an occasion; flags, evergreens, military bands, cold chickens, and smiling faces, however, made all sunny within, and the whole affair passed off very satisfactorily.

ARCHITECTURAL GUIDE BOOKS.

On taking up your interesting journal last Friday, I was attracted by the title of an article which a little puzzled me. It was as follows:—"Architectural Guide Books, with a ticklish et cætera." Now what "an et cætera," "ticklish" or otherwise, could possibly be, excited my curiosity, and I read an article which, for correctness and propriety of style, fully carried out all that might have been anticipated from its "funny" heading. After mentally cancelling a series of redundant epithets such as "hideous," "barefaced," "scare-crow," "Jemmy Jessamy," "blundering," "pulling," "feeble," "inane," "dry," "bombastic," "pedantic," "trashy," &c. I found that the author's intention appeared to have been to cause the writers of all guide books "to eat dirt."

Now, Sir, as the friend of one or two men of acknowledged profound learning, taste, and intelligence, who have exercised their talents upon such works, I must protest against your allowing the pages of the generally admirably conducted BUILDER to be occupied with such communications as that of your "incorrigible" correspondent.

I need scarcely point out the injustice of a criticism which designates the admirable works of Sir Francis Palgrave, Sir Gardner Wilkinson, Col. Leake, Mr. Peter Cunningham, Mr. Woods, Valery, Forsyth, Rossini, George Dennis, Vasi, Förster, Bünsen, Plätner, Gutensohn, Sir William Gell, Ford, Canina, Sir Charles Fellows, &c. as "the veriest ragamuffins of literature." After all the money and energy that have been of late years expended by Mr. John Murray upon his most valuable series of works, it does really seem unpardonable for any writer to speak in such abusive and off-hand terms upon the subject. If such judgment awaits the poor architects, in the event of your correspondent's wishes with regard to architectural criticism ever being carried out, I can only express my fervent hope that we may have none of it.

As an old traveller on the continent, I may be permitted to bear testimony to the general excellency of the well-known red books, and the very great use of which I have found them in studying the fine arts. The summaries which have reference to the history of the monuments and culture of the liberal arts in every district, I have heard many of unquestionable authority pronounce to be invariably condensed with judgment, replete with information, and satisfactory as to tone and appreciation. An allusion to Italy is unfortunate, since the "Murray" for Northern Italy happens to have been written by one whose reputation as a savant, connoisseur, and writer, is unquestionable, and whose style is as free from pleonasm and waggishness, as that of your correspondent is full of both.

If that gentleman has travelled at all, he must either have never used his Guide-Book, and can therefore know nothing on the sub-

ject, or he must attribute the majority of whatever he learned to having its council and information at hand for ready reference, to supply him with the precise data necessary to enable him to appreciate the historical and other conditions of every monument he examined. If he has learned what I think he might and ought to have done from the study of "guide" books, I think it is, to say the least, somewhat ungrateful to throw down the ladder by which he may have risen.

It is perfectly possible that you, Sir, may not agree in all respects with my opinion as regards the excellency of the works in question, but I think I may assume, from the earnest and serious tone in which you are in the habit of predicating concerning serious things, that you will be as ready to recognize the impropriety of your correspondent's manner, if not matter, as can possibly be your obedient servant, "FID. DEF."

ARCHITECTURAL CRITICISM.

As you have allowed me to pass the rubicon, and give utterance to one or two far more wholesome than welcome remarks, hardly will you object to my returning to a topic which affords so much of that rare, if not always valuable, stuff—the *non dictum prius*. Among various other equally strange and deplorable anomalies in the position of architecture as one of the fine arts, not the least striking is that, while its followers are apt to bluster not a little about the power and excellency of their art, seldom do they practise it as if it were a fine art at all, or let it be seen that they are ambitious of showing themselves to be possessed of that unfeigned *con amore* diligence and sincere affection for their "mission" which are inseparably united with every genuine artistic nature. Some, undoubtedly, there are who can allege in excuse for themselves the want of adequate opportunity for the display of artistic talent; although, for my own part, I am of opinion that he who possesses the requisite talent will be able to put at least some artistic touches—to infuse some artistic sentiment—into almost the humblest and most unpromising subject; nay, that he will do so almost instinctively, since what is in the artist-mind will ooze out, although circumstances may hinder its being poured out. Few can hope to be called upon to produce architectural epics, yet cleverness and smartness, if no higher quality, may surely be shown in an architectural epigram; or, to speak less figuratively, artistic feeling and taste may be manifested, at any rate negatively if not positively, under nearly the most unfavourable circumstances conceivable. Even where grandeur is utterly out of the question, the naïve and the graceful are attainable, would the ambition of embryo palace-builders but allow them to condescend to that level, which they seem to scorn, although, after all, it is perhaps rather above than below them. Instead of endeavouring to elevate their subject, whatever it may be, into the region of art, architects seem to need to be lifted out of quotidian dullness and commonplace by their subject; but architects show themselves to be too much like Cowper's "Jack,"

"Who knew no medium between guzzling beer,
And his old stint, three thousand pounds a-year."

For above epigram,* they require the epic of their art to enable them to show *forte*. Well, then, what are our architectural epics? Why, if we are to believe ourselves—that is, those who speak to the public,—they are almost all failures in a greater or less degree. It is the constant taunt of critics and journalists that, with, perhaps, one or two exceptions at most, all our public buildings are a reproach to our taste as a nation.

Architects are widely differently circumstanced from all other artists, literary ones included, and very disadvantageously so, inasmuch as they are completely dependent in the first place upon the chances of opportunity, and, in the next, upon the self-willedness of employers, whose caprices and obstinacy are

* By the epigrammatic, the writer, of course, means the Printed style of architecture.—Printer's Devil.